

In the Claims:

1. (Currently Amended) A method for manufacturing a combustion chamber of a gas-turbine engine, comprising:

casting a plurality of individual wall sections from a ~~conventionally non-weldable high-temperature~~ highly-temperature resistant nickel-based casting alloy;

joining the individual wall sections by laser welding to make up the combustion chamber.

2. (Original) The method of claim 1,

wherein the individual cast wall sections are annular/circular segments of the combustion chamber.

3. (Previously Cancelled)

4. (Previously Cancelled)

5. (New) The method of claim 2,

wherein the laser welding is performed without filler material. *when no filler*

6. (New) The method of claim 5,

wherein the laser welding inputs low energy to the wall sections.

7. (New) The method of claim 6,

wherein the laser welding is performed with a diode laser.

8. (New) The method of claim 7,

wherein the laser welding provides a crack-free joint between cast wall sections.

9. (New) The method of claim 8,

wherein the highly-temperature resistant nickel-based casting alloy is C1023.

5A5 10. (New) The method of claim 1,

wherein the laser welding is performed without filler material.

SAB 11. (New) The method of claim 1,
wherein the laser welding inputs low energy to the wall sections.

SA 12. (New) The method of claim 1,
wherein the laser welding is performed with a diode laser.

SA 13. (New) The method of claim 1,
wherein the laser welding provides a crack-free joint between cast wall sections.

SA 14. (New) The method of claim 1,
wherein the highly-temperature resistant nickel-based casting alloy is C1023.

SA 15. (New) The method of claim 2,
wherein the highly-temperature resistant nickel-based casting alloy is C1023.

SA 16. (New) The method of claim 15,
wherein the laser welding is performed without filler material.
